9/3,K/1 (Item 1 from file: 275) Links
Gale Group Computer DB(TM)

02336305 **Supplier Number:** 55730383 **(Use Format 7 Or 9 For** FULL TEXT)
JVMs tailored for Net appliances.(Technology Information)

Clohessy, Kim
Electronic Engineering Times , 108
Sept 13 , 1999
ISSN: 0192-1541
Language: English **Record Type:** Fulltext
Word Count: 1642 **Line Count:** 00132

...the environment provided by a Java Virtual Machine, obtaining all of its
services from that **JVM**. This makes Java programs highly portable
between **different computing** architectures and
different types of embedded devices.
The Java API that the program uses to obtain services is...

19990913

9/3,K/2 (Item 2 from file: 275) Links
Gale Group Computer DB(TM)

02110257 **Supplier Number:** 19840757 **(Use Format 7 Or 9 For** FULL TEXT)
C++ code profilers. (four code analysis programs for Visual C++) (includes related articles on the editors' choice, and on Java profiling)(PC Tech) (Software Review)(Evaluation)

Sipe, Steven E.
PC Magazine , v16 , n18 , p257(5)
Oct 21 , 1997
Document Type: Evaluation
ISSN: 0888-8507
Language: English **Record Type:** Fulltext; Abstract
Word Count: 3854 **Line Count:** 00313

...machine-language instructions before they can be executed. The translation is the job of the **Java Virtual Machine** (**JVM**). JVMs are provided for many **different** operating systems and **processors**.

It is the **JVM** that contains the execution information necessary for profiling. To profile a Java application, the profiler...

19971021

9/3,K/3 (Item 3 from file: 275) Links
Gale Group Computer DB(TM)

02015361 **Supplier Number:** 18957803 **(Use Format 7 Or 9 For** FULL TEXT)
Technology. (ActiveX, Java) (includes related article on tips) (ActiveX vs. Java) (Technology Information)

Coffee, Peter
Windows Sources , v5 , n1 , p169(3)
Jan , 1997
ISSN: 1065-9641
Language: English **Record Type:** Fulltext; Abstract
Word Count: 2503 **Line Count:** 00222

...technology that extends the local capabilities of COM to cross-network
communication between objects on **different computers**.
Java virtual machine
The **JVM** is code that your browser uses to execute Java applets. The JVM may be software...

19970100

9/3,K/4 (Item 1 from file: 47) Links
Gale Group Magazine DB(TM)

05970432 **Supplier Number:** 67642957 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Perking Up Library Applications.(Brief Article)

Breeding, Marshall
Information Today , 17 , 11 , 52
Dec , 2000
Document Type: Brief Article
ISSN: 8755-6286
Language: English **Record Type:** Fulltext
Word Count: 2484 **Line Count:** 00200

...avoids this complexity by allowing one version of a program to run on
all these **different** types of **computers** through the "
Java Virtual Machine." This is a subsystem that can be
incorporated into a variety of computer environments that...

20001201

9/3,K/6 (Item 2 from file: 621) Links
Gale Group New Prod.Annou.(R)

01345974 **Supplier Number:** 46138916 **(USE FORMAT 7 FOR FULLTEXT)**
HDS Network Systems Inc. to demonstrate the industry's first desktop Network Computer running Java at Uniforum '96; HDS will offer free downloads of prototype Java "Virtual Machine" over the Internet.

Business Wire , p 02121495
Feb 12 , 1996
Language: English **Record Type:** Fulltext
Document Type: Newswire ; Trade
Word Count: 560

...an application to be written once and then run on any computer that supports the **Java "Virtual Machine,"** eliminating the need to port applications to **different** types of **computers.** HDS's new Network Computers will also offer integrated Web access via a licensed copy...

19960212

9/3,K/8 (Item 2 from file: 636) **Links**
Gale Group Newsletter DB(TM)

03016662 **Supplier Number:** 46156424 **(USE FORMAT 7 FOR FULLTEXT)**

NETWORKED MULTIMEDIA NEWS BRIEFS: HDS NETWORK SYSTEMS INC.
Multimedia Network Technology Report , v 3 , n 4 , p N/A
Feb 19 , 1996
Language: English **Record Type:** Fulltext
Document Type: Newsletter ; Trade
Word Count: 216

...an application to be written once and then run on any computer that supports the Java "Virtual Machine," eliminating the need to port applications to different types of computers. HDS's new Network Computers will also offer integrated Web access via a licensed copy...

19960219

9/3,K/11 (Item 3 from file: 148) Links
Gale Group Trade & Industry DB

09306182 **Supplier Number:** 19116727 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Apptivity provides a client/server Java toolkit. (Apptivity Developer toolkit, Apptivity Server)(Brief Article)(Product Announcement)

Balderston, Jim
InfoWorld , v19 , n6 , p44(1)
Feb 10 , 1997
Document Type: Brief Article Product Announcement
ISSN: 0199-6649
Language: English
Record Type: Fulltext
Word Count: 323 **Line Count:** 00030

The Java Apptivity Server applications server can run on any server platform that has a **Java virtual machine**, so IS managers can deploy Apptivity applications throughout **heterogeneous server** environments. Apptivity **Server** applications can be accessed via Java-enabled browsers or from stand-alone Java clients. The...

19970210

9/3,K/14 (Item 1 from file: 15) **Links**
ABI/Inform(R)

02100475 65419881
Perking up library applications

Breeding, Marshall
Information Today v17n11 pp: 52-53
Dec 2000
ISSN: 8755-6286 **Journal Code:** IFT
Word Count: 2307
Text:

...avoids this complexity by allowing one version of a program to run on
all these **different** types of **computers** through the "
Java Virtual Machine." This is a subsystem that can be
incorporated into a variety of computer environments that...

9/3,K/15 (Item 2 from file: 15) Links
ABI/Inform(R)

01850272 05-01264
The Jini Architecture for network-centric computing

Waldo, Jim
Communications of the ACM v42n7 pp: 76-82
Jul 1999
ISSN: 0001-0782 **Journal Code:** ACM
Word Count: 3864
Text:

...mobility easy and safe.

Java's most basic property is that it turns an otherwise **heterogeneous** network of **computing** entities into a homogeneous collection of **Java virtual machines**. By ensuring a basic and consistent environment in which the Jini system can exist, services...

9/3,K/16 (Item 3 from file: 15) **Links**
ABI/Inform(R)

01660677 03-11667
Application adventure

Kobielus, James
Network World v15n26 pp: I16-I20
Jun 29, 1998
ISSN: 0887-7661 **Journal Code:** NWW
Word Count: 3144
Text:

...fully implement the Java classes, methods, properties and event models
contained within the JDK.

Second, **different** client and **server** environments often
support **different** JavaBeans containers, the run-time Java
environments consisting of JVMs, JIT compilers and Java foundation
classes. These containers also provide basic, platform-integrated system
services for...

9/3,K/19 (Item 6 from file: 15) Links
ABI/Inform(R)

01370201 00-21188
Apptivity provides a client/server Java toolkit

Balderston, Jim
InfoWorld v19n6 pp: 44
Feb 10, 1997
ISSN: 0199-6649 **Journal Code:** IFW
Word Count: 299

Abstract:

...The Java Apptivity Server applications server can run on any server platform that has a **Java virtual machine**, so IS managers can deploy Apptivity applications throughout **heterogeneous server** environments. Apptivity **Server** applications can be accessed via Java-enabled browsers or from stand-alone Java clients. The
...

Text:

...The Java Apptivity Server applications server can run on any server platform that has a **Java virtual machine**, so IS managers can deploy Apptivity applications throughout **heterogeneous server** environments. Apptivity **Server** applications can be accessed via Java-enabled browsers or from stand-alone Java clients.

The...

9/3,K/22 (Item 2 from file: 647) **Links**
CMP Computer Fulltext

01141344 **CMP Accession Number:** EET19971013S0058
Java Fever

Rick Boyd-Merritt
ELECTRONIC ENGINEERING TIMES , **1997** , n 975 , PG58
Publication Date: 971013
Journal Code: EET **Language:** English
Record Type: Fulltext
Section Heading: White Paper
Word Count: 4458
, **1997**

...shifted to making stripped- down X86 terminals that could run Windows
applications hosted on a **separate server.**
"For our first network computer, we ported Sun's **Java virtual machine** to the i960 ourselves," said Carrieri. "That was a lot of effort, because we were...

9/3,K/25 (Item 3 from file: 16) Links
Gale Group PROMT(R)

04738828 **Supplier Number:** 46975738 **(USE FORMAT 7 FOR FULLTEXT)**

Sybase plans comeback
InfoWorld , p 1
Dec 16 , 1996
Language: English **Record Type:** Fulltext
Document Type: Magazine/Journal ; Trade
Word Count: 462

...database management system (RDBMS) will be able to assign decision-support and transactional tasks to **different processors**.

Sybase eventually plans to add the **Java virtual machine** to SQL Server, enabling Java applets to be executed within the database server as stored...

19961216

9/3,K/7 (Item 1 from file: 636) **Links**
Gale Group Newsletter DB(TM)

04899531 **Supplier Number:** 67373059 **(USE FORMAT 7 FOR FULLTEXT)**

IBM, the Colossus that was transformed.
Computer Business Review , v 6 , n 6 , p 44
June , 1998
Language: English **Record Type:** Fulltext
Document Type: Newsletter ; Trade
Word Count: 921

...of the AS/400 is ideal for running Java applications, largely because
the so-called **Java Virtual Machine** -- a part of the
computer separate from the operating system that

19980601

9/3,K/11 (Item 3 from file: 148) Links
Gale Group Trade & Industry DB

09306182 **Supplier Number:** 19116727 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Apptivity provides a client/server Java toolkit. (Apptivity Developer toolkit, Apptivity Server)(Brief Article)(Product Announcement)

Balderston, Jim
InfoWorld , v19 , n6 , p44(1)
Feb 10 , 1997
Document Type: Brief Article Product Announcement
ISSN: 0199-6649
Language: English
Record Type: Fulltext
Word Count: 323 **Line Count:** 00030

The Java Apptivity Server applications server can run on any server platform that has a **Java virtual machine**, so IS managers can deploy Apptivity applications throughout **heterogeneous server** environments. Apptivity **Server** applications can be accessed via Java-enabled browsers or from stand-alone Java clients. The...

19970210

9/3,K/14 (Item 1 from file: 15) **Links**
ABI/Inform(R)

02100475 65419881
Perking up library applications

Breeding, Marshall
Information Today v17n11 pp: 52-53
Dec 2000
ISSN: 8755-6286 **Journal Code:** IFT
Word Count: 2307
Text:

...avoids this complexity by allowing one version of a program to run on
all these **different** types of **computers** through the "
Java Virtual Machine." This is a subsystem that can be
incorporated into a variety of computer environments that...

9/3,K/18 (Item 5 from file: 15) Links
ABI/Inform(R)

01478486 01-29474
Visa boosts Java's credit line

Gaudin, Sharon
Computerworld v31n31 pp: 1, 16
Aug 4, 1997
ISSN: 0010-4841 **Journal Code:** COW
Word Count: 777

Abstract:

...new smart card will revolutionize the way people spend money. The chip
will include a **Java Virtual Machine** to interpret the
Java code to each **different** machine, and a **processor**. That
will enable the card for multiple uses, including the following: 1.
transferring cash from...

Text:

...to catch on in the U. S. (see story above).

The chip will include a **Java Virtual Machine**, to
interpret the Java code to each **different** machine, and a
processor. That will enable the card for multiple uses, including
the following:

Transferring cash from an...

9/3,K/23 (Item 1 from file: 16) Links
Gale Group PROMT(R)

07051799 **Supplier Number:** 58352181 **(USE FORMAT 7 FOR FULLTEXT)**

Is the Java Cup Half Full or Half Empty?(use of Java by IT departments)(Industry Trend or Event)
Whiting, Rick
Software Magazine , v 18 , n 13 , p 43
Oct , 1998
Language: English **Record Type:** Fulltext Abstract
Document Type: Magazine/Journal ; General Trade
Word Count: 2767

...integration, IS shops are relying on Java's platform-independent capabilities to run "servlets" on **heterogeneous servers** -- surprising given that problems with **JVM** (**Java virtual machine**) compatibility helped kill Java on the desktop. Daiwa Securities, for example, is able to write...

19981001

9/3,K/25 (Item 3 from file: 16) Links
Gale Group PROMT(R)

04738828 **Supplier Number:** 46975738 **(USE FORMAT 7 FOR FULLTEXT)**

Sybase plans comeback
InfoWorld , p 1
Dec 16 , 1996
Language: English **Record Type:** Fulltext
Document Type: Magazine/Journal ; Trade
Word Count: 462

...database management system (RDBMS) will be able to assign decision-support and transactional tasks to **different processors.**

Sybase eventually plans to add the **Java virtual machine** to SQL Server, enabling Java applets to be executed within the database server as stored...

19961216

10/5,K/2 **Links**

Fulltext available through: USPTO Full Text Retrieval Options STIC Full Text Retrieval Options

INSPEC

07473794 **INSPEC Abstract Number:** C2000-02-6150N-194

Title: Design and implementation of a distributed virtual machine for networked computers

Author Sirer, E.G.; Grimm, R.; Gregory, A.J.; Bershad, B.N.

Author Affiliation: Dept. of Comput. Sci. & Eng., Washington Univ., Seattle, WA, USA

Journal: Operating Systems Review **Conference Title:** Oper. Syst. Rev. (USA) vol.33, no.5 p. 202-16

Publisher: ACM ,

Publication Date: Dec. 1999 **Country of Publication:** USA

CODEN: OSRED8 **ISSN:** 0163-5980

SICI: 0163-5980(199912)33:5L.202:DIDV;1-T

Material Identity Number: O043-2000-001

Conference Title: 17th ACM Symposium on Operating Systems Principles

Conference Date: 12-15 Dec. 1999 **Conference Location:** Kiawah Island Resort, SC, USA

Language: English **Document Type:** Conference Paper (PA); Journal Paper (JP)

Treatment: Practical (P)

Abstract: Describes the motivation, architecture and performance of a distributed virtual machine (DVM) for networked computers. DVMs rely on a distributed service architecture to meet the manageability, security and uniformity requirements of large, heterogeneous clusters of networked computers. In a DVM, system services, such as verification, security enforcement, compilation and optimization, are factored out of clients and located on powerful network servers. This partitioning of system functionality reduces the resource requirements of network clients, improves site security through physical isolation and increases the manageability of a large and **heterogeneous** network without sacrificing performance. Our DVM implements the **Java Virtual Machine**, runs on x86 and DEC Alpha **processors** and supports existing Java-enabled clients. (63 Refs)

Subfile: C

Descriptors: client-server systems; Java; security of data; software architecture; software performance evaluation; telecommunication security; virtual machines; workstation clusters

Identifiers: distributed virtual machine; networked computers; software architecture; performance; distributed service architecture; manageability requirements; security requirements; uniformity requirements; heterogeneous clusters; system services; verification; security enforcement; compilation; optimization; network servers; partitioned system functionality; network client resource requirements; site security; physical isolation; Java Virtual Machine; x86 microprocessors; DEC Alpha microprocessor; Java-enabled clients

Class Codes: C6150N (Distributed systems software); C7430 (Computer engineering); C6110B (Software engineering techniques); C6130S (Data security)

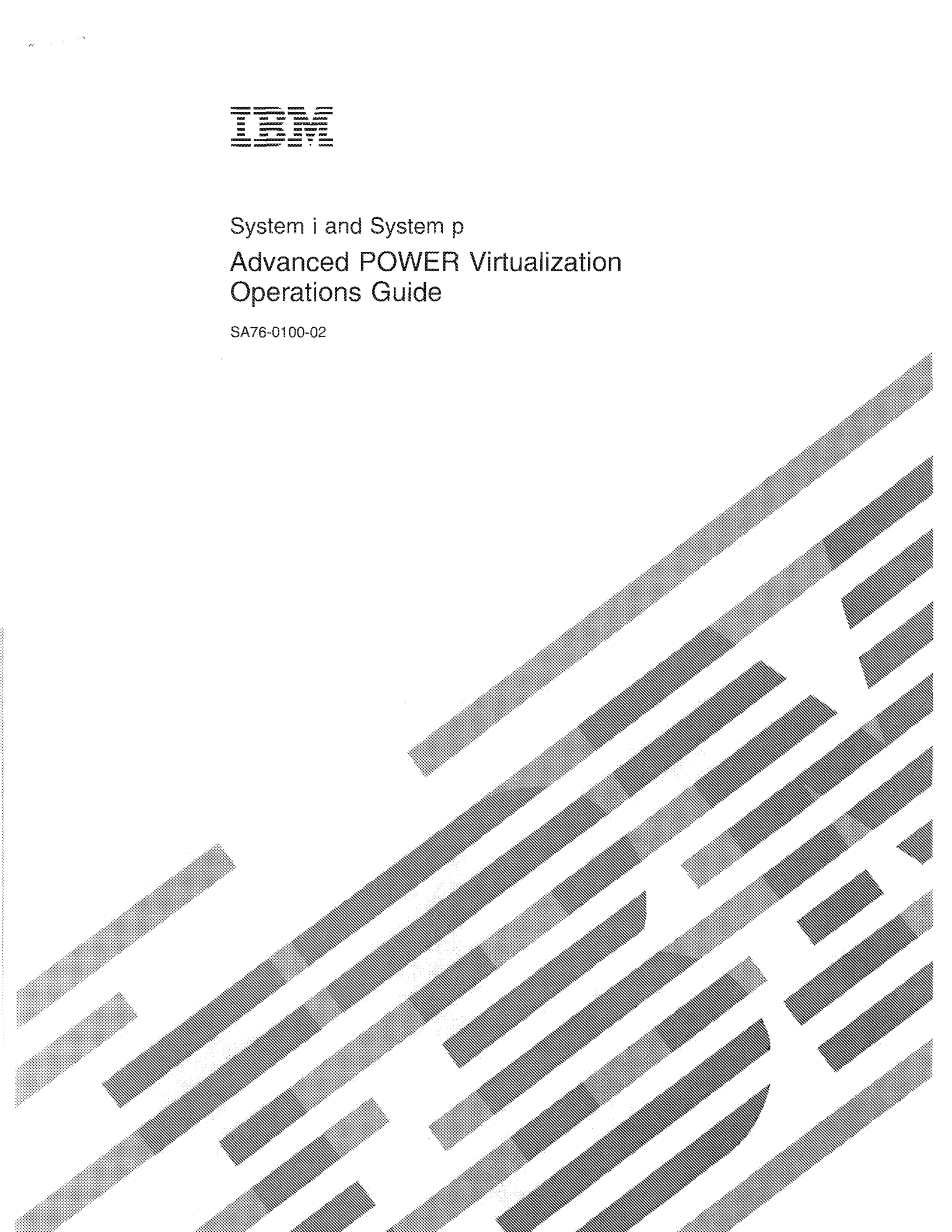
Abstract: ...clients, improves site security through physical isolation and increases the manageability of a large and **heterogeneous** network without sacrificing performance. Our DVM implements the **Java Virtual Machine**, runs on x86 and DEC Alpha **processors** and supports existing Java-enabled clients.

INSPEC

10565165
Title: Portable virtual cycle accounting for large-scale distributed cycle sharing systems
Author Yamauchi, H.; Dongyan Xu
Author Affiliation: Dept. of Comput. Sci., Purdue Univ., West Lafayette, IN, USA
Journal: Parallel Computing vol.33, no.4-5 p. 314-27
Publisher: Elsevier ,
Publication Date: May 2007 **Country of Publication:** Netherlands
CODEN: PACOEJ **ISSN:** 0167-8191
SICI: 0167-8191(200705)33:4/5L.314:PVCA;1-9
Material Identity Number: F777-2007-004
Item Identifier (DOI): 10.1016/j.parco.2007.02.012
Document Number: S0167-8191(07)00023-3
Language: English **Document Type:** Journal Paper (JP)
Treatment: Practical (P)
Abstract: CPU cycle sharing among distributed heterogeneous computers is the key function in large-scale volunteer computing and desktop grid applications. One important problem in large-scale distributed cycle sharing system is how to account for the amount of computation work performed by a CPU cycle provider, in a uniform and portable fashion across heterogeneous hardware and operating system platforms. Such an accounting mechanism is especially desirable when CPU resources are traded and a lack of uniform workload accounting will hinder the enforcement of market-driven CPU pricing/trading policies in distributed cycle sharing systems. **Java Virtual Machine (JVM)** has proved to be a good match for distributed cycle sharing because of its abilities to run applications on a wide variety of platforms without modification (portability) and to host untrusted applications (safety). In this paper, we present the design, implementation, and evaluation of an efficient, application-transparent virtual cycle accounting scheme integrated into **JVM**. Our scheme achieves portable workload accounting across **heterogeneous** computing platforms by accounting for **JVM** virtual instructions instead of real **processor** cycles. Different from the existing **JVM** CPU accounting mechanisms that involve bytecode rewriting, our scheme is transparent to applications and does not require visible changes to application and library code interfaces which would break applications that use Reflection API. Moreover, our scheme is efficient via the use of processor registers for accounting. Our experimental results demonstrate both high accounting accuracy and low runtime overhead of virtual cycle accounting. [All rights reserved Elsevier]. (23 Refs)
Subfile: C
Descriptors: distributed processing; grid computing; Java; virtual machines
Identifiers: virtual cycle accounting; large-scale distributed cycle sharing system; CPU cycle sharing; distributed heterogeneous computers; grid application; Java virtual machine; bytecode rewriting
Class Codes: C6150N (Distributed systems software)

Abstract: ...hinder the enforcement of market-driven CPU pricing/trading policies in distributed cycle sharing systems. **Java Virtual Machine (JVM)** has proved to be a good match for distributed cycle sharing because of its abilities... ...design, implementation, and evaluation of an efficient, application-transparent virtual cycle accounting scheme integrated into **JVM**. Our scheme achieves portable workload accounting across **heterogeneous** computing platforms by accounting for **JVM** virtual instructions instead of real **processor** cycles. Different from the existing **JVM** CPU accounting mechanisms that involve bytecode rewriting, our scheme is transparent to applications and

does...



System i and System p

Advanced POWER Virtualization Operations Guide

SA76-0100-02

Active Partition Mobility has no specific requirements on the mobile partition's memory size or the type of network that is connecting the mover service partitions. The memory transfer is a procedure that does not interrupt a mobile partition's activity and may take time when a large memory configuration is busy on a slow network. Because of this, you might want to use a high-bandwidth connection, such as Gigabit Ethernet or faster, between the Virtual I/O Server partitions that are providing the mover service partition capability.

The maximum distance between the source and destination systems is dictated by the network and storage configuration used by the systems, the ability of the applications to continue to operate when its storage is separated from the server by such a distance, and the requirement that the source and destination systems must be managed by the same HMC. If both systems are on the same network, connected to the same shared storage, and managed by the same HMC, then active Partition Mobility validation will succeed. The time it takes to move the partition and the application performance after a move across a long distance is dependent on the effective network distance between the source and destination systems and application sensitivity to increased storage latency.

Storage configuration for Partition Mobility

Learn more about storage configuration requirements for Partition Mobility.

The mobile partition moves from one server to another by the source server that is sending the partition state information to the destination server over a local area network (LAN). However, partition disk data cannot pass from one system to another system over a network. Thus, for Partition Mobility to succeed, the mobile partition must use storage resources virtualized by a storage area network (SAN) so that it can access the same storage from both the source and destination servers.

Software applications that recognize migrations

Software applications might be designed to recognize and adapt to changes in the system hardware after being moved from one system to another.

Most software applications running in AIX and Linux logical partitions will not require any changes to work correctly during active Partition Mobility. Some applications may have dependencies on characteristics that change between the source and destination servers and other applications might need to adjust to support the migration.

Examples of applications that would benefit if they were Partition Mobility aware:

- Software applications that use processor and memory affinity characteristics to tune their behavior because affinity characteristics may change as a result of migration. The application's functionality remains the same, but performance variations may be observed.
- Applications that use processor binding will maintain their binding to the same logical processors across migrations, but in reality the physical processors will change. Binding is usually done to maintain hot caches, but the physical processor move will require a cache hierarchy on the destination system. This usually occurs very quickly and should not be visible to the users.
- Applications that are tuned for given cache architectures, such as hierarchy, size, line-size, and associativity. These applications are usually limited to high-performance computing applications, but the just-in-time (JIT) compiler of the IBM Java™ virtual machine is also optimized for the cache-line size of the processor on which it was opened.
- Performance analysis, capacity planning, and accounting tools and their agents are usually migration-aware because the processor performance counters may change between the source and destination servers, as may the processor type and frequency. Additionally, tools that calculate an aggregate system load based on the sum of the loads in all hosted partitions must be aware that a partition has left the system or that a new partition arrived.
- Workload managers